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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,324

09/16/2005

Osamu Nabeya

2005-1469A

8213

513 7590 01/21/2009

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EXAMINER

SMITH, NICHOLAS A

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

01/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,324	Applicant(s) NABEYA ET AL.	
	Examiner NICHOLAS A. SMITH	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15, 29, 30 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 is/are allowed.
- 6) ☒ Claim(s) 29, 30 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Substitute Specification submitted on 30 September 2008 is entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Moore (US 7074113 B1).
4. Moore discloses a composite processing method comprising providing a fixed-abrasive process section for processing a surface of a workpiece by a mechanical action and an electrolytic processing section, having a processing electrode and a feeding electrode for processing the workpiece by applying a voltage between the processing electrode and the feeding electrode; processing the surface of the workpiece with the fixed-abrasive processing section by moving the workpiece and the fixed-abrasive relative to each other while keeping contact with the workpiece, and processing the surface of the workpiece with the electrolytic processing station by moving the workpiece and the electrolytic processing section relative to each other to obtain a flattened processed surface. Moore also discloses the claimed order of

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processing (abstract, figure 9, claim 1, col. 9, line 61 to col. 11, line 39). While Moore does not explicitly disclose that using a fixed abrasive would create a plurality of fine, removable scratches on the workpiece surface, since the same steps are performed by Moore such a plurality of scratches would be inherently formed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Uzoh et al. (US 6354916 B1)

7. As stated above in paragraph 3, Moore would inherently form a plurality of scratches on the workpiece surface. However, Moore does not explicitly disclose the depth of the scratches formed.

8. The abrasive particles included on Moore's polishing pad are not explicitly disclosed in size. Uzoh et al. discloses size of the abrasive particles used in wafer processing is either on the order of micron or sub-micron size (col. 2, line 64 to col. 3, line 10). It would have been obvious to one of ordinary skill in the art to select Uzoh et al.'s range of abrasive particle size for Moore's abrasive particles because Uzoh et al. teaches utility over the entire range. Moore in view of Uzoh et al.'s method teaches a range of abrasive particles that would create scratches of a range that overlaps the claimed range of scratch depth therefore establishing a case of prima facie

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obviousness. See MPEP 2144.05. It would have been obvious to one of ordinary skill in the art to select an abrasive particle size that results in a scratch depth that overlaps the claimed range because Uzoh et al. teaches the same utility over the entire range.

Allowable Subject Matter

9. Claim 15 is allowed.

10. The following is an examiner's statement of reasons for allowance: Prior art does not disclose, teach or suggest a method of composite processing of a workpiece where a mechanical processing section and an electrolytic processing section comprising a processing electrode with an ion exchanger are provided and the workpiece is processed by both mechanical and electrolytic processing sections concurrently with a further re-processing step with the electrolytic processing section. Closed prior art (in the field of workpiece electrolytic processing with an ion exchanger) is WO 02103771 A1 (US 7101465 used for reference) and only teaches a mechanical processing section separate from the electrolytic processing section with an ion exchanger (CMP station in col. 27, line 51 to col. 28, line 2). Furthermore, the ion exchanger itself (electrolytic processing section) is described as only sliding contact and no press mechanism (col. 18, lines 13-26; col. 27, lines 25-33). Therefore, one of ordinary skill in the art would not be motivated to perform a method of composite processing wherein a mechanical processing section and an electrolytic processing section comprising a processing electrode with an ion exchanger are provided and the workpiece is processed by both mechanical and electrolytic processing sections concurrently.

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11. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Amendment

12. Applicant's arguments with respect to claim 29 have been considered but are moot in view of the new ground(s) of rejection. Please see above.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS A. SMITH whose telephone number is

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(571)272-8760. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571)-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harry D Wilkins, III/
Primary Examiner, Art Unit 1795

NAS